

**IN THE UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF MISSISSIPPI
SOUTHERN DIVISION**

HONORA HILLIER

PLAINTIFF

VS

CAUSE NO. 1:08 CV 671LG-RHW

USAA CASUALTY INSURANCE COMPANY

DEFENDANT

**PLAINTIFF'S MOTION TO EXCLUDE
THE TESTIMONY OF LORI COX, USAA'S EXPERT**

COMES NOW the Plaintiff, Honora Hillier and moves to exclude the testimony at trial of Lori Cox, an expert designated by the Defendant, USAA Casualty Insurance Company ("USAA").

Lori Burke Cox provided two expert reports in this case. The first, dated January 11, 2006, is attached hereto as Exhibit A. The second, dated February 13, 2007, is attached hereto as Exhibit B. Cox was deposed on September 3, 2009, and the transcript of her deposition is attached hereto as Exhibit C.

Cox is a Mississippi licensed engineer who signed and stamped a report written by Michael Hummel, a colleague in her office who was not licensed to practice engineering in Mississippi. As discussed below, Cox merely rubber-stamped the report without doing any investigation of the facts or determining whether Hummel's conclusions were correct. Cox authored a second report without doing any further fact-gathering or analysis. Cox's facts and methodology are unreliable and her testimony would not be helpful to the finder of fact. Her testimony should be entirely excluded at trial.

Standard for Admission of Expert Testimony

The admission of expert testimony is controlled by Rule 702:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed.R.Evid. 702. Under FRE 702, a party offers evidence based on scientific, technical or other specialized knowledge through the testimony of a qualified expert. Cole's Tool Works v. Am. Power Conversion Corp., 2009 U.S. Dist. LEXIS 45677, 4-5 (N.D. Miss. May 7, 2009). The party advancing the witness' testimony bears the burden of establishing both the expert's qualifications and the admissibility of the subject testimony. Id., citing Mathis v. Exxon Corp., 302 F.3d 448, 460 (5th Cir. 2002) ("The party offering the expert must prove by a preponderance of the evidence that the proffered testimony satisfies the rule 702 test.").

The Supreme Court has clarified the trial judge's function in determining the admissibility of expert testimony. Daubert v. Merrill Dow Pharmaceuticals, 509 U.S. 579, 589, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993). The judge's role is the gatekeeper; he is to make a preliminary determination concerning the relevance and reliability of the proposed testimony pursuant to FRE 104(a).

Rule 702's reliability component requires consideration of whether the proposed testimony is supported by appropriate validation-- that is, 'good grounds' based on what is known. Daubert, 509 U.S. at 590. The objective is to ensure that "an expert, whether basing testimony upon professional studies or personal experience, employs in the

courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." Seatrax, Inc. v. Sonbeck Int'l, Inc., 200 F.3d 358, 371 (5th Cir. 2000).

The Supreme Court endorsed the following non-exclusive test as an aid in assessing the reliability of an expert's proffered testimony: 1) whether the expert's theory can or has been tested; 2) whether the theory has been subject to peer review and publication; 3) the known or potential rate of error of a technique or theory when applied; 4) the existence and maintenance of standards and controls; and 5) the degree to which the technique or theory has been generally accepted in the scientific community. Moore v. Ashland Chem. Inc., 151 F.3d 269, 275 (5th Cir. 1998)(en banc). Expert testimony on matters within the common knowledge of the jury does not assist the trier of fact and is thus inadmissible. Cole's Tool Works v. Am. Power Conversion Corp., 2009 U.S. Dist. LEXIS 45677 (N.D. Miss. May 7, 2009); *see also* Peters v. Fire Star Marine Serv., 898 F.2d 448 (5th Cir. 1990).

Lori Cox's Testimony Should Be Excluded.

Cox did not perform any investigation or analysis for her reports. She signed her name to Hummel's report without checking his facts or methodology. Cox also made sweeping statements in the second report which had no basis in fact or science.

In this case, there were two insured buildings on the property --- Hillier's main residence and her guest house. The main residence, built in the early 1800s, was entirely destroyed in Hurricane Katrina. The guest house, built in the late 1990s, was left mostly intact. An important question in the case is why the guest house, which is adjacent to the residence, was spared by Katrina while the main house was lost.

Lori Cox opined in her reports that three main water forces destroyed the Hillier residence --- hydrodynamic force; hydrostatic force; and wave action. These forces, of course, would depend in large part on the height of the storm surge at the finished floor elevations of the properties. Cox suggests that these forces destroyed the residence while mostly sparing the guesthouse.

However, there are no facts or analysis in Cox's reports which support her theories. Cox did not know the elevations of the finished floors of the two structures; the height or velocity of the storm surge; the weather conditions at the Hillier property; the height or type of waves on the property; and had no good explanation as to why the storm surge spared the guest house.

Storm Surge Level

To begin with, Cox has no idea of how high the storm surge was at the Hillier residence. The report states that, "According to the insured the elevation of the first floor was approximately 17 feet above mean sea level." Exhibit A at 2. Cox admitted that she never bothered to check the elevation of the residence. Exhibit C at 19. Cox also did not know the elevation of the guesthouse. *Id.* at 33. In fact, USAA's own meteorologist, Barry Keim, placed the general elevation of the Hillier's land at approximately 22 feet based on FEMA flood maps. Exhibit D at 6.

The elevations of the finished floors of the buildings would have been substantially higher. Ralph Kean Jenner, III, USAA's own engineering expert, testified that the first finished floor of the main residence was approximately two feet higher than the land, and a foot higher than the guesthouse. Exhibit E, Dep. of Ralph Kean Jenner, III at 64.

Since Cox asserts that the storm surge forces destroyed the residence but not the guesthouse, the relative height of the storm surge at the two buildings is important. Cox did not even know the elevation of the finished floor at the residence in relation to the guesthouse. She would be unable to testify as to why the surge destroyed the residence but not the guesthouse because she simply has no idea of the relative elevations of the two buildings

Hydrodynamic Force

Cox opined in her February 13, 2007 report that “[t]he storm surge would produce both hydrostatic and hydrodynamic forces on the building.” Exhibit B at 5. Cox described hydrodynamic force as “the force of moving water on an object.” Exhibit C at 52. Cox testified that “hydrodynamic forces are going to vary based on the velocity.” Id. at 53. However, Cox testified that she didn’t know the velocity of the storm surge at the Hillier residence during Hurricane Katrina. Id. at 52. Without that basic fact, Cox cannot support her theory that the hydrodynamic force of the storm surge destroyed the Hillier residence because she cannot calculate the hydrodynamic force.

Hydrostatic Force

Cox testified that a hydrostatic force is “a lateral force exerted on the wall due to the weight of the water pushing on the wall.” Exhibit C at 52. The calculation assumes that there is no water on the other side of the wall. Id. at 53. However, Cox’s reports do not state any facts which indicate why the water would have risen outside of the Hillier residence without also rising inside the residence. In fact, the deposition of William Kimble, one of Hillier’s neighbors who rode out the storm in his home, describes the

rising of the water inside his house as the water rose outside the house. *See, i.e.*, Exhibit F, Dep. of William Kimble at 25.

Hydrostatic force assumes water on one side of the wall only. Cox's theory that hydrostatic force destroyed the Hillier residence depends on the home being watertight so that the rising storm surge did not enter the residence. There are no facts in Cox's report which support her theory that the Hillier house was so watertight that the hydrostatic force of the storm surge destroyed it.

Wave Action

Cox's February 13, 2007 report states that "wave action and floating debris would most likely exacerbate structural damage." Exhibit B at 5. However, Cox did not know how high the waves were at the Hillier residence. Exhibit C at 53-54.

Cox did not know how high the waves were at the Hillier residence partly because her calculations were based on unbroken waves, while the waves at the Hillier residence were breaking waves. Cox's January 11, 2006 report opined that "a wave can reach a maximum height of 78% of the water depth before it breaks" and that, "[g]iven the 51-inch still water depth and the fact that there was no major obstructions between this property and the Gulf of Mexico it is likely that the waves in this area approached a height of 7.5 feet." Exhibit A at 3. Cox actually recanted that calculation at her deposition, stating that Hummel had calculated it wrongly, and testified that she thought the waves were actually five to six feet. Id. at 24.

Cox testified that her calculations were based on the depth of the water at the guest house. Id. at 3. However, as discussed above, Cox did not know the elevation of the land or the finished floor at the residence.

Cox testified that her calculation applied only to unbroken waves. Exhibit C at 23. She testified that she did not know whether the waves at the Hillier residence were breaking waves or unbroken waves. Id. at 25. Cox testified that she had “no opinion on the waves if they were breaking.” Id. at 24.

USAA’s own climatology expert, Donald Slinn, testified that the waves at the Hillier residence were all breaking waves. Exhibit G at 183. Cox testified that she had no opinions on breaking waves. Id. at 24. Consequently, Cox’s opinions that the waves exacerbated structural damage to the residence are not based on any rational calculation of the wave height or force at the Hillier residence, and are purely speculative in nature.

Weather Conditions During Hurricane Katrina

Cox had no idea of the weather conditions at the Hillier site during Hurricane Katrina. Cox’s report opines generally that, in hurricanes “the surge arrives before the highest winds.” Exhibit A at 3. Her second report of February 13, 2007, stated that, “finalized data from the National Weather Service addressed later in this report¹ illustrate the storm surge arrived well before the winds of Hurricane Katrina.” Exhibit B at 3. However, when confronted with the report of Barry Keim, USAA’s own meteorology expert, which stated that the peak winds arrived over an hour prior to the peak storm surge², Cox admitted, “It could have happened that way.” Exhibit C at 46.

Construction of the Hillier Residence

Cox conceded that the Hillier main residence was built in the early 1800s. Exhibit C at 30. Cox testified that she was familiar with the construction standards for residences in the 1800s in Mississippi. Exhibit C at 50. She testified that residences built

¹ The report did not subsequently discuss National Weather Service data, but apparently offered Cox’s own private theories of wind/water timing in Hurricane Katrina. Exhibit B at 4.

² Exhibit D at Table 1.

in that era were “built to stand and that was it. There were no construction standards.”

Id. She testified that the method of construction of a residence at that time was left up to the individual builder. Id.

Cox suggested in her report that, although the dwelling was built in a time where there were no construction standards, the mere fact that the building had withstood “150 years of hurricanes” proved that it was well constructed. Exhibit B at 5. Cox specifically referenced Hurricanes Camille and Elena, stating that the Hillier residence had withstood higher winds in Camille and Elena than in Katrina. Id.

However, Cox did not know the wind speeds at the Hillier property during Camille and Elena, or the height of the storm surge at the Hillier site during those storms. Exhibit C at 51. Since she does not know the weather conditions at the Hillier property during Camille and Elena, Cox cannot reliably compare them to the wind speeds at the Hillier property during Katrina. Therefore, nothing whatsoever supports Cox’s theory that the mere fact that the Hillier residence withstood Camille and Elena proves that it was well constructed and its method of construction was therefore not a factor in its destruction in Katrina.

Wind Damage

Cox testified that she could not testify as to the exact amount of damage which wind caused to the Hillier residence prior to the arrival of the storm surge. Exhibit C at 55. However, she testified that believed that wind damage to the Hillier residence would have been limited to “lightweight items, possibly shutters, maybe some guttering and down spouts, probably a few shingles but no more than that.” Id. She stated that some of the facts which supported that opinion were: (1) the fact that the trees in the pictures still

had leaves on them, although she did not know what wind speed it would take to blow leaves off of trees (Id. at 56); (2) the fact that the storm surge had pushed the debris into piles, and the debris was not scattered about as though by wind (Id. at 57); and some of the guesthouse walls still had pictures on them, indicating no high winds during Hurricane Katrina (Id. at 58). Obviously, these are not reliable facts which would support Cox's opinion regarding minimal wind damage.

Cox also suggested that photos of a nearby house revealed relatively little wind damage, although she admitted that it also showed relatively little storm surge damage, as well. Exhibit C at 60-61. When asked why the storm surge had not destroyed that residence, Cox listed the factors:

Q: Do you know the elevation of the structure?

A: No, I don't.

Q: Do you know why the storm surge didn't get this structure?

A: I believe it was further inland than the Hillier residence was, which offered some buffering action to the structure. There are a variety of reasons why the structure could still be standing and the Hillier structure gone.

Q: Okay. What are those reasons?

A: Age of the structure. Construction. Maintenance of the structure. The elevation of the structure compared to the Hillier structure. Finish floor elevation differences. Those are primarily it. There are others that come into play that I can't recall right now.

Q: Do you know that this house was inward --further inland than the Hillier structure?

A: I don't know the exact location of this house in relation to where the Hillier structure was at. I believe they were close.

Exhibit C at 61.³ Although Cox opined that the reason the storm surge spared the house was because it was "further inland" than the Hillier residence, Cox did not know the position of the house in relation to the Hillier residence. Id. In fact, she thought it was

³ Interestingly, the main factors which Cox lists as possible reasons why the surge destroyed the Hillier residence but did not destroy the house next door --- age of the structure, elevation of the structure, finish floor elevation differences --- are the same factors which Cox ignores or refutes in her analysis of why the wind may have destroyed the Hillier residence but left the guesthouse.

positioned similarly to the guesthouse. Id. However, she did not know the distance between the Hillier home and the guesthouse, stating only that it was “behind” the main residence. Id. at 69. Therefore, Cox was merely speculating that the house next door was “further inland” than the Hillier home. Cox had no reliable facts or calculations to support her opinion that wind caused minimal damage to the Hillier residence.

The Guesthouse.

An important in this case is, if the storm surge completely destroyed the Hillier residence, why it did it leave almost intact the guesthouse immediately adjacent to it? Cox opined that the guesthouse “was further inland from the Hillier residence. By then a lot of the energy from the storm surge had dissipated by destroying other structures in its path.” Id. at 69. Cox, however, did not know how much further inland the guesthouse was in relation to the residence. Id. All she knew is that guesthouse was “behind” the residence. Id.

Cox testified that the guesthouse was not directly behind the residence, but was to the northeast of the residence. Id. at 70. When it was pointed out that, due to the position of the guesthouse in relation to the residence, waves coming from the south would not have been dissipated by “destroying other structures in its path.”, Cox changed gears and devised an impromptu theory that the guesthouse was not destroyed by the storm surge because it was at the “breaking point of the force of the storm.” Id. at 70. She testified that “the guesthouse was probably right at the critical point of the breaking line of the energy of the storm surge.” Id. She admitted, however, that none of the formulas in her report addressed the “breaking line of the energy of the storm surge.” Id. This theory is obviously sheer improvisation and speculation on Cox’s part.

Cox also suggested that a two-foot base cabinet in the guesthouse kitchen supported the south wall, protecting the entire guesthouse from the force of the storm water surging in from the Gulf of Mexico. Id. at 71-3. Cox overlooks the fact that the main residence had a much larger kitchen with many more base cabinets that failed to prevent that structure from being entirely destroyed during the hurricane.

Conclusion

Cox's opinions are not supported by any real facts or methodology. Cox testified that she never personally inspected the Hillier property. Exhibit C at 12. Cox testified that she never spoke to the Hilliers. Id. at 18. She testified that she had no personal knowledge of the facts of the case or the Hillier property other than what had been reported to her. Id. at 13. Cox testified that, Michael Hummel, her colleague, visited the Hillier site and gathered the information for the reports. Id. at 19. Accordingly, Cox relied entirely on the fact-gathering performed by Hummel for her conclusions as stated in the reports.

Hummel drafted the report and sent it to Cox. Id. at 18. Cox did not recall making any changes to it. Id. Cox's deposition testimony reveals that she merely rubber-stamped Hummel's report without questioning any of his facts, even though there were many obvious gaps and conflicts in the facts and mistakes in his analysis.

For example, Page 3 of the report states that, "The grass strip in front of the subject property that ran between Scenic Drive and I-90 had been eroded in a manner consistent with water flowing back to the ocean." Exhibit A at 3. The report refers to Photograph 15. Id. However, the report contains no Photograph 15. Exhibit A. Cox testified that she did not know where Photograph 15 was, did not know anything about it,

and had no personal knowledge of the conditions allegedly depicted in Photograph 15. Id. at 20. Therefore, there was absolutely no basis in fact for the statement in Cox's report about the purported erosion. Cox agreed with Hummel's assertion about the erosion without any evidence to support it.

As evidenced by Hummel's reference to a non-existent photograph, Cox signed Hummel's report without even looking at the data collected by Hummel. As evidenced by Cox's belated correction of the wave height analysis (Id. at 24), Cox did not check Hummel's calculations. Cox opined that storm surge destroyed the residence without knowing the correct timing of the peak surge and peak wind at the Hillier property; the correct elevation of the Hillier land; or the elevation of the finished floors of the residence and the guesthouse. Cox opined that hydrostatic force destroyed the residence without knowing the velocity of the storm surge. Cox opined that wave action damaged the residence without knowing the height of the waves on the property. Cox opined that the winds at the Hillier residence were higher during Hurricanes Camille and Elena without knowing what those wind speeds actually were. In sum, Cox's opinions have no basis in fact. All of her testimony should be excluded.

DATED: November 3, 2009

HONORA HILLIER,
Plaintiff

BY: /s/ Tina L. Nicholson
TINA L. NICHOLSON, MSB#99643

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that the foregoing document has been filed with the CM/ECF system which will furnish a true and correct copy to all counsel of record in this case.

This the 3rd day of November, 2009.

/s/ Tina L. Nicholson

TINA L. NICHOLSON, MSB #99643

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